

Application No. 10/617,007
Amendment "A" dated July 7, 2005
Reply to Office Action mailed March 7, 2005

REMARKS

The present Amendment is in response to the Examiner's Office Action mailed March 7, 2005. Claims 1-27 were pending. Claim 21 is amended. Claim 1-27 remain pending in view of the above amendments.

Reconsideration of the application is respectfully requested in view of the above amendments to the claims and the following remarks. For the Examiner's convenience and reference, Applicants' remarks are presented in the order in which the corresponding issues were raised in the Office Action.

Please note that the following remarks are not intended to be an exhaustive enumeration of the distinctions between any cited references and the claimed invention. Rather, the distinctions identified and discussed below are presented solely by way of example to illustrate selected differences between the claimed invention and the cited references. In addition, Applicants request that the Examiner carefully review any references discussed below to ensure that Applicants' understanding and discussion of the references, if any, is consistent with the Examiner's understanding.

A. Objection to the Claims

The Office Action objects to claim 21 for being inconsistent with what is disclosed in the specification, specifically, the discussion contained on page 10, paragraph 0037 relating to the use of a non-latching magnetic material in an environment with stray magnetic fields. In response, Applicants have amended claim 21 to claim a *non*-latching magnetic material to bring

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the claim into conformity with the disclosure of paragraph 0037. Removal of the objection is therefore respectfully requested.

B. Rejections Under 35 U.S.C. § 102

The Office Action rejects claims 1, 3, 6, 9, 10, and 23-27 under 35 U.S.C. § 102(e)¹ as being anticipated by *Kinoshita* (United States Patent Publication No. US 2002/0008901 A1). However, *Kinoshita*—assuming *arguendo* that it and the other references cited herein qualify as prior art—fails to teach each and every element of the pending claims and thus is not an anticipatory reference.

Kinoshita generally teaches an optical fiber amplifier for use in optical communication systems. In particular, *Kinoshita* discloses, as seen in figure 42, an optical fiber amplifier having a polarization-keeping pump source 142 including pump light sources 142A and 142B, and a polarizing multiplexer 142C in communication with the pump light sources. The amplifier further includes an optical demultiplexer-multiplexer 143 and separate isolator 144-2. *Kinoshita* notes that the polarization-keeping pump source 142 is connected to the optical demultiplexer-multiplexer 143. In turn, Figure 42 shows the optical demultiplexer-multiplexer 143 connected in series with the isolator 144-2. See *Kinoshita*, ¶¶ 467-472; Figure 42.

The claimed invention is substantially distinct from the device taught by *Kinoshita*. In particular, independent claim 1 requires, in a pump module for optical amplification of a light signal, an active component part including a first laser diode and a second laser diode, and "a

¹ Because *Kinoshita* is only citable under 35 U.S.C. § 102(e) Applicants do not admit that *Kinoshita* is in fact prior art to the claimed invention but reserve the right to swear behind *Kinoshita* if necessary to remove it as a reference.

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combiner disposed on the substrate and optically coupled to the active component part, ...wherein the *combiner* isolates the first laser diode and the second laser diode from back reflections." *Kinoshita* discloses no such combiner. Indeed, though *Kinoshita* teaches a polarizing multiplexer for combining pump light from the pump light sources 142A and 142B, it is the separate isolator 144-2, not the multiplexer, that allows light to pass only in the direction indicated by the respective arrow shown on part 144-2. This point is confirmed by the discussion in ¶ 282 of *Kinoshita* regarding the isolators 16-1 to 16-3 shown in figures 54(a) and 54(b).

Thus, the combiner of *Kinoshita* fails to isolate from back reflections, as required by independent claim 1 of the present invention. Consequently, *Kinoshita* fails to teach or suggest each and every element of claim 1 and thus cannot be used to anticipate the present invention. Further, inasmuch as claims 2-15 are variously dependent on independent claim 1, they are also allowable for at least the reasons given above. Applicant therefore respectfully submits that each of the above claims is patentably distinct and requests that the section 102 rejection in view of *Kinoshita* be withdrawn.

Independent claim 23 is also patentably distinct from *Kinoshita*. In particular, claim 23 discloses a pump module for pumping an optical amplifier comprising a plurality of combiners that each receive a first beam and a second beam, "wherein each *combiner* isolates a source of the first beam and a source of the second beam from back reflections." As discussed above, *Kinoshita* fails to teach at least this limitation. Thus claim 23, and dependent claims 24-27 that depend therefrom, are also allowable, and the section 102 rejection in view of *Kinoshita* should be withdrawn.

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The Office Action rejects claims 16-22 under 35 U.S.C. § 102(b) as being anticipated by *Fukushima* (United States Patent No. 5,402,509). Because *Fukushima* does not teach or suggest each and every element of the rejected claims, however, Applicants respectfully traverse this rejection in view of the following remarks.

Fukushima generally discloses an optical device for optically connecting first and second optical fibers and is suitable for use in an optical amplification system. In particular, and as seen in Figure 1 and other figures, *Fukushima* teaches an optical device that includes optical fibers 1 and 2 having a lens 3 disposed therebetween, a double refraction element 4, a magneto-optic element 5, a double refraction element 6, and a lens 7 in order of mention. One or more excitation ports 8 for emitting polarized light are also included. As seen in Figure 4 and 6C, for example, multiple optical fibers can also be added to the device. See *Fukushima* Abstract; col. 3 ll 11-30; col. 5, ll 11-25; col. 7, ll 50-56; Figures 1-6c.

The claimed invention is substantially distinct from the device taught by *Fukushima*. In particular, independent claim 16, which discloses a combiner for use in combining a first pumping beam with a second pumping beam traveling in a forward direction, requires the presence of a first birefringent wedge, a rotator, and "a second birefringent wedge that combines the first pumping beam and the second pumping beam received from the rotator into an output beam." *Fukushima* fails to disclose such a combiner. Indeed, though it discloses wedge plates in its optical device, *Fukushima* nevertheless fails to teach such plates combining the first and second beams. Rather, it is the lens of the *Fukushima* device that converges the non-combined

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light beams, such as the light beams 127 and 128 of Figure 6C, after passage through the wedge plates. Indeed, lines 51-56 of column 7 of *Fukushima* state:

[T]he foci formed by *converging* of the beams 127 and 128 *by the lens 3* are placed inside the core of the optical fiber 1 at its excitation end 1A. Thus, *by converging* the beams 127 and 128 *with the lens 3*, they can be introduced into the optical fiber 1. (Emphasis added.)

The additional wedge plate embodiments of *Fukushima* are similarly configured.

Consequently, *Fukushima* fails to teach or suggest each and every element of independent claim 16 and thus cannot be used to anticipate the present invention. Further, inasmuch as claims 17-22 are dependent on independent claim 16, they are also allowable for at least the reasons given above. Applicant therefore respectfully submits that each of the above claims is patentably distinct and requests that the Section 102 rejection in view of *Fukushima* be withdrawn.

C. Rejections Under 35 U.S.C. § 103

The Office Action rejects claims 2, 4, and 15 under 35 U.S.C. § 103(a) as being unpatentable over *Kinoshita* in view of *Bischel, et al.* (United States Patent Publication No. 2002/0110328 A1). Claims 7-8 are rejected under Section 103(a) as being unpatentable over *Kinoshita*. In addition, The Office Action rejects claim 5 under Section 103(a) as being unpatentable over *Kinoshita* in view of *Souda, et al.* (United States Patent No. 5,493,440).

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Finally, claims 11-14 are rejected under Section 103(a) as being unpatentable over *Kinoshita* in view of *Huang, et al.* (United States Patent No. 5,493,440).

Applicant notes that each of the above rejections is at least partly based upon the *Kinoshita* reference. It is further noted that each of the above rejected claims is variously dependent upon independent claim 1. As was previously discussed, the teachings of *Kinoshita* are inapplicable to the present invention as applied to independent claim 1 for failing to teach or suggest each of the limitations contained in that claim. Thus, *Kinoshita* is equally inapplicable to the present claims rejected under Section 103 for at least the same reasons, that is, its failure to teach or suggest all of the claim limitations contained not only in independent claim 1, but also the limitations contained in the present rejected dependent claims. Thus, the Examiner has failed to make out a *prima facie* case of obviousness. The Applicant therefore submits that claims 2, 4, 5, 7, 8, and 11-15 are allowable and that the above rejection under Section 103 should be withdrawn.

D. Statement Regarding Common Ownership

As discussed above, the Office Action rejects claims 11-14 under 35 U.S.C. § 103(a) as being unpatentable over *Kinoshita* in view of *Huang, et al.* (United States Patent No. 5,493,440). Applicants respectfully submit, however, that the above-captioned application and *Huang, et al.* were, at the time the claimed invention of the above-captioned application was made, owned by or subject to an obligation of assignment to assignee Finisar Corporation. Pursuant to MPEP §

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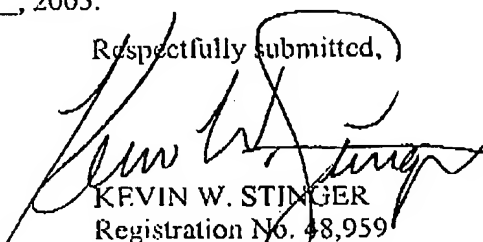
706.02 (1)(1)-(2), therefore, Applicants submit that *Huang, et al.* cannot be used as a reference in rejecting claims of the above-captioned application under Section 103(a).

CONCLUSION

In view of the foregoing, Applicants believe that each of the pending claims 1-27 is now in condition for allowance. Therefore, reconsideration of the rejections is requested and allowance of those claims is respectfully solicited. In the event that the Examiner finds any remaining impediment to a prompt allowance of this application that can be clarified in a telephonic interview, the Examiner is respectfully requested to initiate the same with the undersigned attorney.

Dated this 7th day of July, 2005.

Respectfully submitted,



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